AMENDED IN ASSEMBLY MARCH 18, 2009

CALIFORNIA LEGISLATURE—2009–10 REGULAR SESSION

ASSEMBLY BILL No. 44

Introduced by Assembly Member Blakeslee
(Coauthor: Assembly Member Harkey)
(Coauthor: Senator Benoit)

December 1, 2008

An act to add Section ~~454.6~~ *454.35* to, and to add Chapter 7.7 (commencing with Section 2835) to Part 2 of Division 1 of, the Public Utilities Code, relating to energy.

LEGISLATIVE COUNSEL'S DIGEST

AB 44, as amended, Blakeslee. Energy storage facilities.

(1) Under existing law, the Public Utilities Commission is vested with regulatory authority over public utilities, including electrical corporations, and ~~authorizes~~ the commission *is authorized* to fix the rates and charges for every public utility. Existing law authorizes the commission to approve an increase of one-half of 1 percent to 1 percent in the rate of return otherwise allowed an electrical corporation for investment by the corporation in generation facilities using renewable resources.

This bill would authorize the commission, after a hearing, to approve a similar increase in the rate of return for investment by a corporation in energy storage facilities, as defined, that meet any of specified requirements*, and to establish additional incentives for eligible energy storage facilities, as defined*.

The bill would require the commission to develop a time-variant tariff that ~~establishes and maximizes~~ *creates* incentives for ~~the storage and dispatch of energy by an eligible facility~~ *eligible energy storage*

facilities. ~~The bill would require the commission, in consultation with the Energy Commission, to prepare and submit a report to the Governor and the Legislature, by January 1, 2012, on the costs and benefits to ratepayers of energy storage.~~

~~The bill would require an electrical corporation to develop a standard contract or tariff providing for energy storage metering that accounts separately for both the charging and discharging of energy by an energy storage system, and to make this contract available to eligible facilities upon request.~~

Under existing law, a violation of the Public Utilities Act or an order or direction of the commission is a crime. Because the provisions of this bill would require an order or other action of the commission to implement, and a violation of that order or action would be a crime, the bill would impose a state-mandated local program by creating a new crime.

(2) The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.

Vote: majority. Appropriation: no. Fiscal committee: yes. State-mandated local program: yes.

The people of the State of California do enact as follows:

SECTION 1. Section ~~454.6~~ *454.35* is added to the Public Utilities Code, to read:

~~454.6.~~

454.35. (a) The commission, after a hearing, may approve an increase of one-half of 1 percent to 1 percent in the rate of return otherwise allowed an electrical corporation for investment by the corporation in energy storage facilities that meet any of the following requirements:

~~(a)~~

(1) The facility stores energy generated from an eligible renewable energy resource~~, as defined in Section 399.12, during off-peak periods, as defined by the commission, and dispatches the energy during on-peak periods, as defined by the commission.~~ *pursuant to Article 16 (commencing with Section 399.11) of Chapter 2.3.*

~~(b)~~

(2) The facility is capable of responding to Independent System Operator commands to either absorb or dispatch energy from the grid and is capable of storing the energy for a minimum of two hours.

~~(c)~~

(3) The facility is capable of providing frequency ~~and~~ *or* area control error regulation required to integrate intermittent renewable resources and maintain reliable operation of the electrical grid.

(4) The facility stores energy during off-peak periods and dispatches the energy during on-peak periods.

(b) The commission may establish additional incentives for eligible storage facilities, as defined in Section 2835.2, including, but not limited to, the following:

(1) Tariffs or contracts providing for energy storage metering.

(2) An increased rate of return for investments in eligible storage facilities, in addition to the amount authorized pursuant to subdivision (a).

(3) Rebates for storage capacity and use.

SEC. 2. Chapter 7.7 (commencing with Section 2835) is added to Part 2 of Division 1 of the Public Utilities Code, to read:

Chapter 7.7. Energy Storage Systems

2835. This chapter shall be known and may be cited as the Integration of Renewable Energy Act.

2835.2. For the purposes of this chapter the following terms have the following meanings:

(a) "Energy storage system" means any technology that is capable of absorbing energy from a generation facility, storing it for a period of time, and dispatching the energy onto the grid. Energy storage systems include, but are not limited to, hydrogen storage, pumped hydroelectricity storage, compressed air energy storage, *thermal storage, solar thermal storage* superconducting magnetic energy storage, ~~flow batteries, cell~~ batteries, super capacitors, and fly wheels.

(b) "Eligible storage facility" or "eligible facility" means any facility that employs an energy storage technology that meets at least one of the following requirements:

(1) The facility stores energy generated from an eligible renewable energy resource~~, as defined in Section 399.12, during off-peak periods and dispatches the energy during on-peak periods.~~ *pursuant to Article 16 (commencing with Section 399.11) of Chapter 2.3.*

(2) The facility is capable of responding to Independent System Operator commands to either absorb or dispatch energy from the grid and is capable of storing the energy for a minimum of two hours.

(3) The facility provides frequency ~~and~~ *or* area control error regulation required to integrate intermittent renewable resources and maintain reliable operation of the electrical grid.

(4) The facility stores energy during off-peak periods and dispatches the energy as electricity during on-peak periods.

2835.4. The Legislature finds and declares all of the following:

(a) Energy storage systems can potentially enable higher percentages of renewable energy to be included in California's power supply portfolio by transforming intermittent generation, such as wind and solar power, into dispatchable resources, allowing the state to more fully utilize its abundant renewable resources.

(b) Energy storage systems can serve as load shifting technologies by absorbing energy during off-peak periods, such as from wind resources at night, and delivering the energy when demand is greatest, thereby potentially reducing the need for, and associated greenhouse gas emissions from, gas-fired peaker plants.

(c) Energy storage systems can greatly enhance the flexibility of the operation of the power grid by quickly absorbing or dispatching energy when needed.

(d) Energy storage systems that have an inverter can deliver reactive power as well as real power. This is particularly useful when the storage systems are located in load centers as they can help support the voltage in a transmission-constrained area.

(e) It is the intent of the Legislature to facilitate the expansion and deployment of *both customer-owned and utility-owned* energy storage systems, which are critical to the timely and cost-effective achievement of the state's ambitious renewables portfolio standard, greenhouse gas emissions reduction targets, and regional air quality objectives while maintaining reliable operation of the power grid.

2835.6. ~~(a)~~ The commission shall develop a time-variant tariff ~~that establishes and maximizes incentives for an eligible storage~~

that creates appropriate incentives for eligible storage facilities. ~~facility to do both of the following:~~

~~(1) Store energy when demand is low or to ensure reliable operation of the electrical grid.~~

~~(2) Dispatch stored energy during peak demand or to ensure reliable operation of the electrical grid while intermittent resources are ramping up or down.~~

~~(b) By January 1, 2012, the commission, in consultation with the Energy Commission, shall prepare and submit a report to the Governor and the Legislature on the costs and benefits to ratepayers of energy storage.~~

~~2835.8. (a) Every electrical corporation shall develop a standard contract or tariff providing for energy storage metering that accounts separately for both the charging and discharging of energy by an energy storage system, and shall make this contract available to eligible facilities upon request.~~

~~(b) An electrical corporation shall make all necessary forms and contracts for energy storage metering service available for download from the Internet.~~

SEC. 3. No reimbursement is required by this act pursuant to Section 6 of Article XIII B of the California Constitution because the only costs that may be incurred by a local agency or school district will be incurred because this act creates a new crime or infraction, eliminates a crime or infraction, or changes the penalty for a crime or infraction, within the meaning of Section 17556 of the Government Code, or changes the definition of a crime within the meaning of Section 6 of Article XIII B of the California Constitution.

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